CHAPTER 1. INTRODUCTION AND PRE-EXISTING CONDITIONS AT THE MA

1.1 Background

In July 2000, the Bureau of Reclamation (Reclamation), in cooperation with the Environmental Protection Agency (EPA), the Ute Mountain Ute Tribe (UMUT) and the Southern Ute Indian Tribe (SUIT), completed the Final Supplemental Environmental Impact Statement (FSEIS) for the Animas-La Plata (ALP) Project. The purpose of the ALP Project is to implement the Colorado Ute Indian Water Rights Settlement Act of 1988 (P.L. 100-585), as amended by the Colorado Ute Settlement Act Amendments of 2000. The ALP Project is located in southwestern Colorado and will serve this area and northwestern New Mexico. The Project's principle structural component will be an off-channel reservoir in Ridges Basin to store water diverted from the Animas River. Ridges Basin Reservoir will have a total storage capacity of approximately 120,000 acre-feet (af). A pumping plant and inlet conduit will be used to divert water from Animas River and to deliver it to the reservoir for storage. Basin Creek will be used to convey ALP Project water back to the Animas River for downstream delivery.

According to the FSEIS, construction of Ridges Basin Dam and the filling of the reservoir will result in the permanent loss of 121 acres of emergent wetland habitats. Also, approximately 13 acres of riparian habitat downstream of the dam will be impacted. Thus, a total of 134 acres of wetland/riparian habitats will be impacted as a result of the ALP Project. As stated in the FSEIS and the subsequent Record of Decision (ROD), Reclamation will mitigate for these impacts at a ratio of 1.5:1 which is within the range of ratios mentioned in section 10.5 of the 404(b)(1) Evaluation report and the various options discussed in the preliminary estimates of mitigation opportunities in the Wetlands Mitigation Opportunities Report developed for the FSEIS (Volume II of the FSEIS). The Fish and Wildlife Coordination Act Report, as summarized in the FSEIS Volume I, refers to and concurs with section 5.4.4 of the FSEIS which commits to the 1.5:1 acre mitigation ratio for wetlands/riparian mitigation.

Section 10.5 of the 404(b)(1) evaluation report suggests mitigation ratios of 1 to 1 for restoration, 2 to 1 for creation, and 3 to 1 for enhancement and preservation. The Wetlands Mitigation Opportunities Report describes mitigation "'credits" according to these ratios. Reclamation negotiated a ratio of 1.5 to 1 as agreed to by the EPA and the U.S. Fish and Wildlife Service (Service) and committed to it in the FSEIS and the ROD. Reclamation's enhancement, protection, creation and restoration of a severely impacted riparian area clearly provide effective mitigation for the acres of wetland/riparian habitat lost in Ridges Basin and along Basin Creek.

Reclamation coordinated potential mitigation opportunities to replace the functions and values of the wetland/riparian habitat that will be impacted by the ALP Project with specialists representing the EPA, the Service and the Colorado Division of Wildlife (CDOW). It was agreed among the agencies that the best opportunity to replace wetland/riparian impacts would be along the La Plata River corridor because: 1) the floodplain of the river corridor has been modified by agricultural development and channelization projects for flood protection; 2) undesirable weed species are replacing native riparian plant communities, and 3) the potential for future development along the river corridor could impact existing riparian habitats.

Consequently, both the condition and extent of the native plant communities that otherwise would normally be found along the river corridor have been greatly diminished, and the potential for further decline is significant unless portions of the river corridor are protected.

In 2000, Reclamation began purchasing the Huntington Ranch, now referred to as the MA, and now has title to the Ranch. The Ranch consists of three separate parcels, two of which encompass portions of the river corridor (Figure 1). The past use of the ranch has been livestock grazing, farming and hunting. A significant portion of the MA contains segments of the La Plata River and its floodplain. Many of the acreages listed below in Table 1 do not meet the riparian definition, but certainly are associated with the river system and may be considered buffer zones. There are 234 acres of true wetland/riparian habitat currently within the MA that would likely fall within the 100-year floodplain (Table 2).

Table 1. Acreage of river valley bottomland within the riparian portion of the MA.

Mitigation Area	Parcel	River Bottomland Acres	Total Mitigation Area Acres
Tract I	Single Parcel	0	3758
Tract II	Main Parcel Northern Parcel Western Parcel	370.6 152.7 0.0	1003
Tract III	Single Parcel	610.6	1239.5
Total	**All**	**1133.9**	**6000.5**

Two ranch parcels (tracts II and III) contain the area that comprises the proposed ALP Project riparian portion of the MA. The MA contains approximately 1,135 acres of La Plata River valley bottomland (Table 1) and 3.9 miles of the River Corridor. Refer to the 2003 Plan as well as Table 2 and Figure 2 below for a detailed description of the complete inventory of riparian habitat types and the relative quality of those riparian habitat types as well as the associated buffer zones established in 2001.

Table 2. Acreage of habitats delineated within the riparian portion of the MA.

RIVER TRACTS:	Tract III	Tract II (North)	Tract II (Main)	Totals:
Habitat	**Riparian Acres**			
RFS-H-Type 1	0.9	0	2.7	3.6
RFS-M-Type 2	29.4	9.6	31.2	70.2
RFS-L-Type3	38	4.8	24.1	66.9
RM-H-Type 1	2.9	0	0	2.9
RM-M-Type 2	26.4	10	0.5	36.9
RM-L-Type 3	25	0.6	11.6	37.2
EW/M	0.1	0.4	0	0.5
RIVERINE	7.6	2.9	5.4	15.9
TOTALS:	**130.3**	**28.3**	**75.5**	**234.1**
Habitat	**Upland Buffer Acres**			
CO	2.2	0.6	0	2.8
DGS	253.2	68.2	202.6	524
GFU	11.5	5.1	0	16.6
IFPG	0	2	0	2
Oak Woodland	6.1	2.2	6.2	14.5
Pinyon-Juniper	207.3	43.5	85.9	336.7
RIR	0	0	0.8	0.8
SC	0	2.3	0.1	2.4
TOTALS:	**480.3**	**123.9**	**295.6**	**899.8**

HABITAT CODE	CODE DEFINITION
RFS-H-Type 1	Riparian forest complex in high functioning condition.
RFS-M-Type 2	Riparian forest complex in mid-range functioning condition.
RFS-L-Type 3	Riparian forest complex in low functioning condition.
RM-H-Type 1	Riparian meadow in high functioning condition.
RM-M-Type 2	Riparian meadow in mid-range functioning condition.
RM-L-Type 3	Riparian meadow in low functioning condition.
EW/M	Emergent wetland/marsh habitat.
RIVERINE	Flowing river or canal.
CO	Cottonwood/Oak.
DGS	Desert Grassland/Sagebrush.
GFU	Grass/Forb Upland.
IFPG	Irrigated Farmlands, Pasture/Grazing.
Oak Woodland	Gamble's oak dominated deciduous woodland.
Pinyon-Juniper	Pinyon-juniper complex woodland.
RIR	Residential, Industrial and Roads.
SC	Sagebrush/Cottonwood.

The riparian forest/scrub-shrub and riparian meadow habitats were subclassified into Type 1 (RFS-H-1 and RM-H-1), Type 2 (RFS-M-2 and RM-M-2) or Type 3 (RFS-L-3 and RM-L-3) habitats, with Type 1 having the best habitat values. The subclassification is based on the presence/absence of undesirable weed species, vegetative cover density, and habitat structure. Reference standards were developed separately for each of the habitat subclasses.

Figure 1. General Mitigation Area Map.

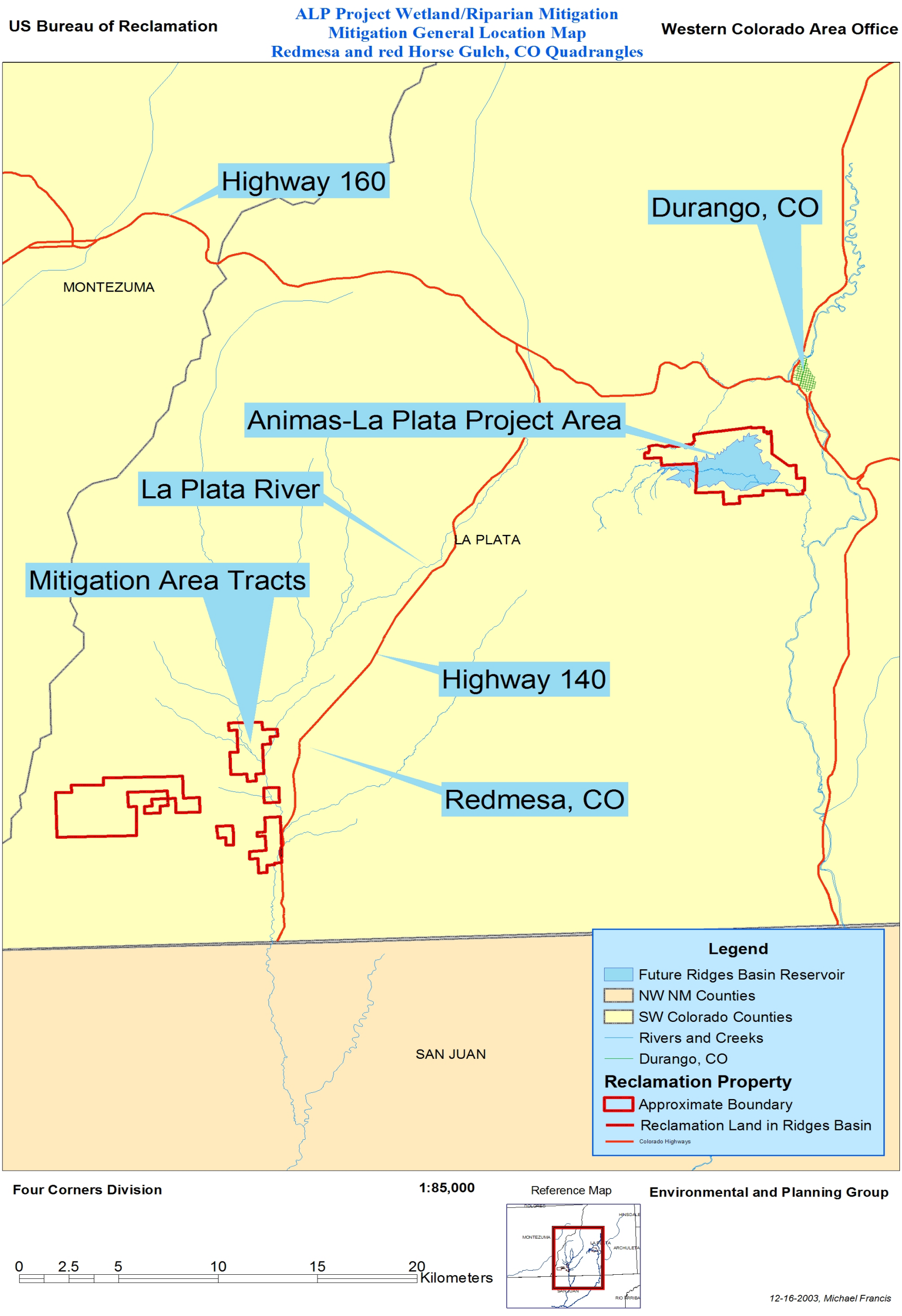


Figure 2. Baseline habitat map for the Riparian Portion of the ALP Project MA.

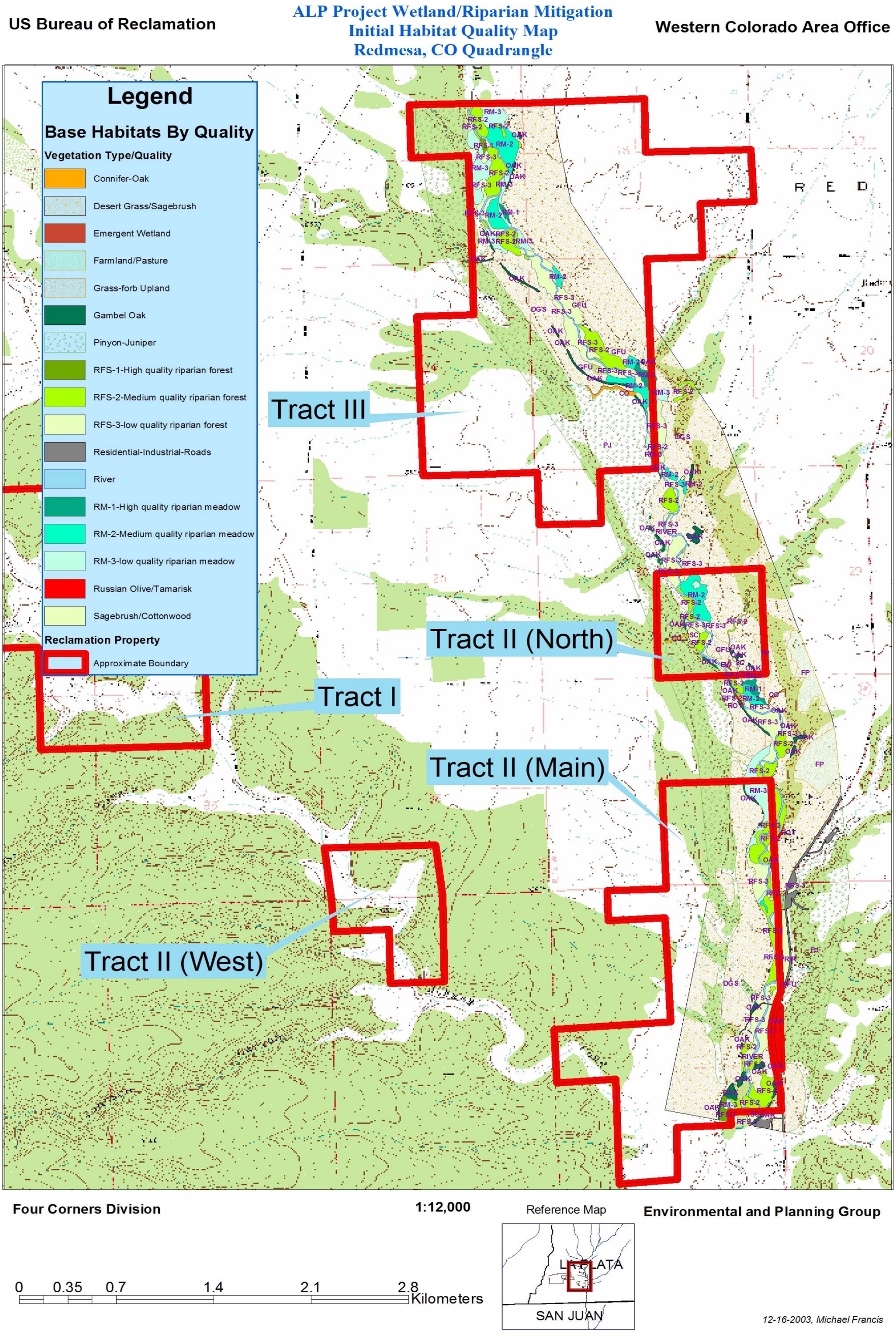
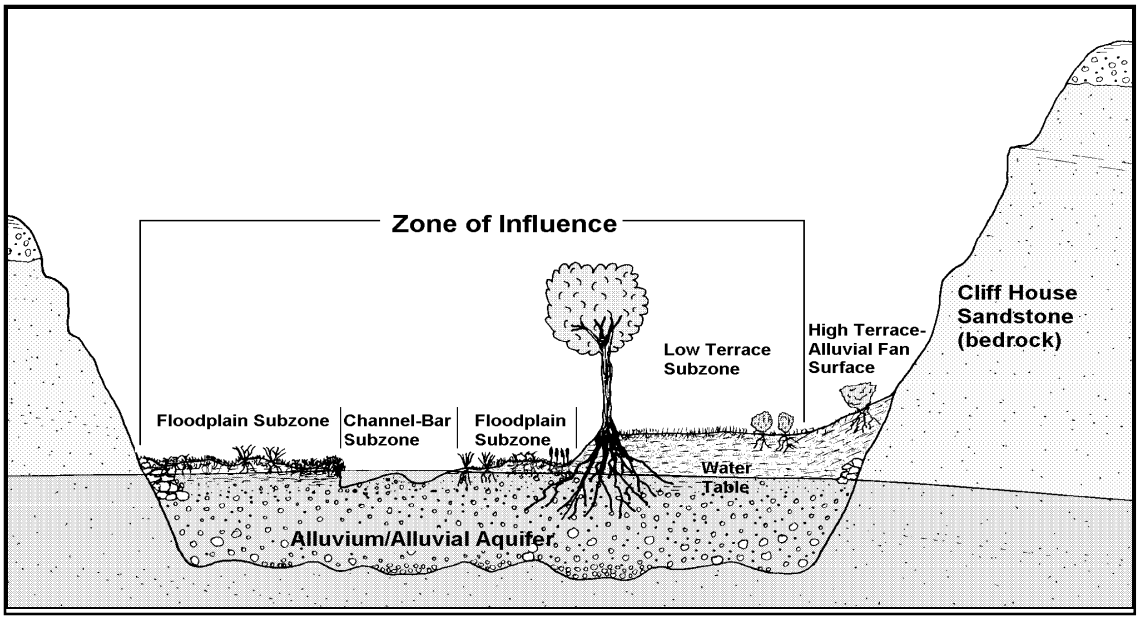


Figure 3. Cross-section of the La Plata River valley.



1.2 Factors Limiting Habitat Functions and Values

There are six main factors that limit riparian habitat functions within the MA. First, streamflow diversions, principally for irrigation uses affect the amount of surface water that historically was available to riparian plants growing in the river's zone-of-influence as evidenced by existing remnant communities. However, groundwater return flows resulting from irrigation provide a source of perennial flow in limited areas within the MA.

Second, livestock grazing has reduced streambank vegetation, thereby causing accelerated rates of riverbank erosion and loss of riparian vegetation. The lack of riparian vegetation along the banks limits shading, increasing the evaporation from the ground surface which can limit the amount of moisture available for plants. The removal of livestock will eliminate the grazing effects that have impacted both bank stability and the functional condition of riparian plant communities.

Third, the invasion of undesirable, non-native weeds has greatly affected the functional condition of existing riparian habitats. In many areas, native plant communities have been either wholly or substantially replaced by undesirable plant assemblages, such as tamarisk and Russian olive. Riparian plant communities cannot be restored to their highest functional condition practicable unless a vegetation management plan is implemented to control the presence of undesirable plant species.

Fourth, certain river reaches that have been affected by vegetation removal are experiencing

rapid bank erosion and the loss of riparian plant communities. Stabilization of these eroding riverbanks may be necessary in order to prevent further loss of riparian habitat acreage and to restore habitat functions. Natural recovery processes, after the removal of livestock, may suffice to stabilize these segments of river bank.

A fifth and major effect has been human modification of the river channel and floodplain within the MA. River straightening and the construction of flood control levees have severely impacted riparian areas along an approximately 0.5 mile reach of the river within the MA. Elimination of man-made modifications (channel straightening, berming and inappropriate bankline armoring) and river channel/floodplain restoration will be required in these areas in order to restore riparian plant communities and corresponding riparian functions.

Sixth, the poor conditions of upland habitats also limit the functional condition of the riparian habitats within the MA. A major problem is that noxious weeds in the uplands act as seed sources that facilitate spread into the neighboring riparian habitats. Also, over-grazed uplands provide poor transitional habitat to buffer riparian areas because they lack effective protective groundcover. In combination, these six factors have affected the riparian habitats within the MA, but some of these effects can be corrected with proper mitigation measures. Reclamation's mitigation progress to date is described in the next chapter, "Mitigation Activity Progress".

1.3 Mitigation Goals and Objectives

The overall goal of Reclamation's ALP Project wetland/riparian mitigation plan is to restore a naturally self-sustaining riparian ecosystem within the MA that supports the best functional conditions that can be practicably established. The objectives outlined in the wetland/riparian mitigation plan (and this progress report) focus on the two management areas containing the six factors that are affecting the functional conditions as discussed in the previous section:

- **Hydrology Health:**
    - Monitor to ensure adequate (sufficient to maintain the existing and enhanced areas) hydrologic conditions are maintained within the MA and continue use of water rights associated with the MA.
    - Protect or stabilize eroding streambanks as needed.
    - Restore degraded floodplain within straightened, armored and leveed river reaches.
- **Integrated Vegetation Management:**
    - Remove livestock grazing and the negative affects from livestock grazing.
    - Reduce proliferation of undesirable (noxious weed) species and replace with desirable species.
    - Improve the condition of upland buffers adjoining riparian habitats.

Chapter 2, "Mitigation Activity Progress" describes Reclamation's progress to date on these work items.